

pillar 36 acts like a post to limit the contracting telescoping movement of the male 18 and female 20 members. Once inserted to this shortest overall conduit length, the collar 26 is disposed closer to the bottom end 34 of the female member than the edge of the pocket for receiving the locking member 19 so that the locking member 19 clears the collar 26 as the locking member 19 is inserted to the intermediate position with hooks 25 disposed in the detent recesses 27. In this intermediate position the teeth 23 on the locking member 19 are out of engagement with the teeth 21 on the male member 18 while in engagement with the collar. In other words, the retainer projection 24 may move through the tunnel 30 of the locking member 19 as the length of the conduit is increased whereas the sides of the locking member 19 will engage the collar 26 to compress the spring 22 thereby biasing the telescoping male 18 and female 20 members together to shorten the overall conduit length. During the insertion of the male member 18 into the female member 20, the keyways 38 and 40 are aligned to align the male member 18 within the female member 20. Once the assembly is installed and the overall length of the conduit is established, the locking member 19 is fully inserted to the locked position with its teeth 23 engaged with the teeth 21 on the male member 18.

The invention has been described in an illustrative manner, and it is to be understood that the terminology which has been used is intended to be in the nature of words of description rather than of limitation.

Obviously, many modifications and variations of the present invention are possible in light of the above teachings. It is, therefore, to be understood that within the scope of the appended claims, wherein reference numerals are merely for convenience and are not to be in any way limiting, the invention may be practiced otherwise than as specifically described.

What is claimed is:

1. A motion transmitting remote control assembly (10) type for transmitting motion in a curved path, said assembly coming:

first (14) and second (16) conduit sections:

a flexible motion transmitting core element (12) movably supported in said conduit sections;

adjustment components (18, 20) interconnecting said first and second conduit sections (14, 16) and in telescoping relationship with each other for adjusting the overall length of said first and second conduit sections:

a coil spring (22) interacting [in tension] between said

adjustment components (18, 20) to bias said components together to shorten the overall length of said first and second conduit sections (14, 16).

2. An assembly as set forth in claim 1 including a retainer (24) for retaining said spring (22) in compression on one of said telescoping members.

3. An assembly as set forth in claim 2 wherein said adjustment components include an abutment (19) for reacting with said spring (22) in place of said retainer (24) to bias said telescoping members together in the direction to shorten the overall length of said conduit sections.]

4. An assembly as set forth in claim 3 wherein said first telescoping member is a female member (20) and said second telescoping member is a male member (18) slidably disposed in said female member (20), said spring (22) being supported on said male member (18).

5. An assembly as set forth in claim 4 wherein said male member (18) includes adjustment teeth (21) therealong and a locking member (19) supported by said female member

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D22

D2
(62)

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(20) for engaging said teeth (21) in a locked position to prevent relative telescoping movement between engaging said teeth (21) in a locked position to prevent relative telescoping movement between said telescoping members (18 and 20), said abutment being presented by said locking member (19).

6. An assembly as set forth in claim 5 wherein said locking member (19) includes a tunnel (30) extending therethrough for receiving said retainer (24) through said tunnel (30) during telescoping movement of said male and female members (18 and 20) in the conduit lengthening direction to allow said abutment on said locking member (19) to react with said spring (22).

7. An assembly as set forth in claim 6 wherein said male and female member (18 and 20) include complementary keyways (38 and 40) for rotary orientation of said male member (18) relative to said female member (20).

8. An assembly as set forth in claim 7 wherein said spring (22) spiraled around said male member (18) and includes an annular collar (26) reacting axially between said retainer (24) and said spring (22) and for reacting between said spring (22) and said locking member (19).

9. An assembly as set forth in claim 8 wherein said male member (18) defines an inner end (32) and said female member (20) presents a bottom end wall (34), said retainer (24) presenting a reaction surface for reacting with said collar (26) and which reaction surface is axially spaced toward said bottom end wall (34) from said abutment presented by said locking member (19) when said inner end (32) of said male member (18) is fully inserted adjacent said bottom end wall (34) of said female member (20).

10. An assembly as set forth in claim 9 including a detent (27) for holding said locking member (19) in an intermediate position out of engagement with said teeth (21) while in engagement with said collar (26).

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11. An assembly as set forth in claim 10 wherein said male member (18) includes a sealing length adjacent said inner end (32) thereof in sliding engagement with said female member (20) and a reduced cross section defining a spring seat (44) therebetween, said spring (22) reacting between said spring seat (44) and said collar (26). 8

12. An assembly as set forth in claim 11 including a seal (46) sealing said sealing length of said male member (18) and said female member (20). 9

13. An assembly as set forth in claim 12 including a pillar (36) extending into said female member (20) from said bottom end wall (34) thereof, said pillar (36) having a bore therethrough, said core element extending through said bore in said pillar (36). 10

14. An assembly as set forth in claim 13 wherein said keyways (38 and 40) extend axially along the exterior of said pillar (36). 10

15. An assembly as set forth in claim 13 wherein said male member (18) presents an internal limit surface (42) for engaging the inner end (32) of said pillar (36) to limit the insertion of said male member (18) into said female member (20) to define the shortest overall length of said conduit. 10

16. An assembly as set forth in claim 13 wherein said locking member (19) is U-shaped with teeth (23) on the interior of said legs for engaging said teeth (21) on said male member (18) and hooks (25) at the distal ends of said legs, said detent (27) including recesses in said female member (20) for engaging said hooks (25) in said intermediate position, said female member (20) presenting catches (28) for engaging and retaining said hooks (25) to lock said locking member (19) in said locked position.

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B2